

WHAT IS CLAIMED IS:

1 1. A method of authorizing an electronic commerce
2 transaction between a purchaser using a credit card, an
3 on-line merchant, and a credit card company, said method
4 comprising the steps of:
5 receiving by the merchant, a purchase request from
6 the purchaser;
7 obtaining by the merchant, the purchaser's credit
8 card information;
9 establishing a multi-party data session between the
10 purchaser, the on-line merchant, and the credit card
11 company;
12 producing a bill by the merchant in the multi-party
13 data session, said bill including the purchaser's credit
14 card information;
15 verifying the credit card information by the credit
16 card company;
17 taking an image of the purchaser with a Web camera;
18 validating the purchaser's image by the credit card
19 company;
20 utilizing a whiteboard application to obtain the
21 purchaser's signature;
22 validating the purchaser's signature by the credit
23 card company; and

24 approving the transaction upon positively verifying
25 the credit card information and validating the
26 purchaser's image and signature.

1 2. The method of authorizing an electronic
2 commerce transaction of claim 1 wherein the step of
3 validating the image by the credit card company includes
4 the steps of:

5 storing in an image database, a processed image of
6 a valid cardholder associated with the credit card; and

7 utilizing an image recognition program to compare
8 the image of the purchaser with the stored image of the
9 valid cardholder.

1 3. The method of authorizing an electronic
2 commerce transaction of claim 1 wherein the step of
3 validating the purchaser's signature by the credit card
4 company includes the steps of:

5 storing in a signature image database, a processed
6 image of a signature of a valid cardholder associated
7 with the credit card; and

8 utilizing an image recognition program to compare
9 the signature of the purchaser with the stored image of
10 the valid cardholder's signature.

1 4. A method of authorizing an electronic commerce
2 transaction between a purchaser using a credit card, an
3 on-line merchant, and a credit card company, said method
4 comprising the steps of:
5 receiving by the merchant, a purchase request from
6 the purchaser;
7 obtaining by the merchant, the purchaser's credit
8 card information;
9 establishing a multi-party data session between the
10 purchaser, the on-line merchant, and the credit card
11 company;
12 obtaining the purchaser's credit card information by
13 the credit card company through the multi-party data
14 session;
15 determining by the credit card company whether the
16 credit card is valid;
17 utilizing a whiteboard application to obtain the
18 purchaser's signature, upon determining that the credit
19 card is valid;
20 determining by the credit card company whether the
21 purchaser's signature is valid; and
22 approving the transaction upon determining that the
23 signature is valid.

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1 5. The method of authorizing an electronic
2 commerce transaction of claim 4 wherein the step of
3 determining by the credit card company whether the
4 purchaser's signature is valid includes the steps of:

5 storing in a signature image database, a processed
6 image of a signature of a valid cardholder associated
7 with the credit card; and

8 utilizing an image recognition program to compare
9 the signature of the purchaser with the stored image of
10 the valid cardholder's signature.

1 6. The method of authorizing an electronic
2 commerce transaction of claim 4 further comprising, after
3 the step of determining by the credit card company
4 whether the credit card is valid, the step of rejecting
5 the transaction upon determining that the credit card is
6 not valid.

1 7. The method of authorizing an electronic
2 commerce transaction of claim 4 further comprising, after
3 the step of determining by the credit card company
4 whether the purchaser's signature is valid, the step of
5 rejecting the transaction upon determining that the
6 purchaser's signature is not valid.

1 8. The method of authorizing an electronic
2 commerce transaction of claim 4 further comprising the
3 steps of:

4 taking an image of the purchaser with a Web camera;
5 and

6 determining by the credit card company whether the
7 purchaser's image is valid.

1 9. The method of authorizing an electronic
2 commerce transaction of claim 8 wherein the step of
3 determining by the credit card company whether the
4 purchaser's image is valid includes the steps of:

5 storing in an image database, a processed image of
6 a valid cardholder associated with the credit card; and

7 utilizing an image recognition program to compare
8 the image of the purchaser with the stored image of the
9 valid cardholder.

1 10. The method of authorizing an electronic
2 commerce transaction of claim 8 further comprising, after
3 the step of determining by the credit card company
4 whether the purchaser's image is valid, the step of
5 rejecting the transaction upon determining that the
6 purchaser's image is not valid.

1 11. A system for authorizing an electronic commerce
2 transaction between a purchaser using a credit card, an
3 on-line merchant, and a credit card company, said system
4 comprising:

5 a server associated with the merchant for receiving
6 a purchase request from the purchaser, and for obtaining
7 the purchaser's credit card information;

8 a packet data network that connects the purchaser,
9 the merchant, and the credit card company in a multi-
10 party data session;

11 a Web camera for taking an image of the purchaser in
12 response to the purchaser sending the purchase request to
13 the merchant;

14 a first database that stores valid credit card
15 information, said valid credit card information being
16 compared to the purchaser's credit card information to
17 verify the purchaser's information; and

18 a second database that stores processed images of
19 valid cardholders, said images of valid cardholders being
20 compared to the image of the purchaser to validate the
21 purchaser's image;

22 whereby the credit card company approves the
23 transaction upon positively verifying the credit card
24 information, and upon validating the purchaser's image.

1 12. The system for authorizing an electronic
2 commerce transaction of claim 11 further comprising:

3 a whiteboard application for capturing an image of
4 the purchaser's signature; and

5 a third database that stores processed images of
6 valid cardholder signatures, said images of valid
7 cardholder signatures being compared to the image of the
8 purchaser's signature to validate the purchaser's
9 signature.

1 13. A system for authorizing an electronic commerce
2 transaction between a purchaser using a credit card, an
3 on-line merchant, and a credit card company, said system
4 comprising:

5 a server associated with the merchant for receiving
6 a purchase request from the purchaser, and for obtaining
7 the purchaser's credit card information;

8 a packet data network that connects the purchaser,
9 the merchant, and the credit card company in a multi-
10 party data session;

11 a whiteboard application for capturing an image of
12 the purchaser's signature;

13 a first database that stores valid credit card
14 information, said valid credit card information being

15 compared to the purchaser's credit card information to
16 verify the purchaser's information;

17 a second database that stores processed images of
18 valid cardholder signatures; and

19 an image recognition program that validates the
20 purchaser's signature by comparing the image of the
21 purchaser's signature to an image of a valid cardholder's
22 signature from the second database;

23 whereby the credit card company approves the
24 transaction upon positively verifying the credit card
25 information, and upon validating the purchaser's
26 signature.

1 14. The system for authorizing an electronic
2 commerce transaction of claim 13 wherein the packet data
3 network includes a multicasting mechanism for
4 establishing a multi-party data session between the
5 purchaser, the merchant, and the credit card company in
6 which information related to the transaction is sent to
7 a multicast Internet Protocol (IP) address of a multicast
8 group to which the purchaser, the merchant, and the
9 credit card company belong.

1 15. A method of authorizing a face-to-face
2 commercial transaction between a purchaser using a credit
3 card and a merchant, said method comprising the steps of:
4 receiving by the merchant, a purchase request from
5 the purchaser;
6 obtaining by the merchant, the purchaser's credit
7 card information;
8 establishing a data link between the merchant and a
9 credit card company;
10 sending the credit card information to the credit
11 card company;
12 verifying the credit card information by the credit
13 card company;
14 taking an image of the purchaser with a Web camera;
15 validating the purchaser's image; and
16 approving the transaction by the credit card company
17 upon positively verifying the credit card information and
18 validating the purchaser's image.

1 16. The method of authorizing a face-to-face
2 commercial transaction of claim 17 further comprising the
3 steps of:
4 utilizing a whiteboard application to obtain the
5 purchaser's signature;

6 validating the purchaser's signature; and
7 approving the transaction by the credit card company
8 upon positively validating the purchaser's signature.

1 17. A system for authorizing a face-to-face
2 commercial transaction between a purchaser using a credit
3 card and a merchant, said system comprising:

4 a data link between the merchant and a credit card
5 company for sending the purchaser's credit card
6 information from the merchant to the credit card company;

7 a first database of valid credit card information
8 for verifying the purchaser's credit card information;

9 a Web camera for taking an image of the purchaser;

10 a second database of processed images of valid
11 cardholders for validating the purchaser's image; and

12 an image recognition program for validating the
13 purchaser's image by comparing the purchaser's image to
14 a processed image of a valid cardholder from the second
15 database;

16 whereby the credit card company approves the
17 transaction upon positively verifying the credit card
18 information and validating the purchaser's image.

1 18. A method of authorizing an electronic commerce
2 transaction between a purchaser using a credit card, an
3 on-line merchant, and a credit card company in which the
4 merchant receives a purchase request from the purchaser
5 and obtains the purchaser's credit card information, and
6 the credit card company verifies the credit card
7 information, said method characterized by the steps of:

8 establishing a multi-party data session between the
9 purchaser, the on-line merchant, and the credit card
10 company;

11 taking an image of the purchaser with a Web camera;
12 validating the purchaser's image by the credit card
13 company utilizing an image recognition program and a
14 database of valid cardholder images;

15 obtaining the purchaser's signature with a
16 whiteboard application;

17 validating the purchaser's signature by the credit
18 card company utilizing the image recognition program and
19 a database of valid cardholder signatures; and

20 approving the transaction by the credit card company
21 upon positively verifying the credit card information and
22 validating the purchaser's image and signature.